U.S. DEPARTMENT OF THE INTERIOR
BURNED AREA EMERGENCY STABILIZATION & REHABILITATION TEAM

AUGUST 2001 FIRE COMPLEX

OPERATIONS ASSESSMENT

I. OBJECTIVES

- Identify, inventory, and map fire suppression impacts.
- Initiate discussions with private land owners, state officials, and federal agencies to insure acceptable rehabilitation techniques are implemented.
- Develop short term rehabilitation treatments for fire lines, staging areas, and safety zones; 13 fires totaling 259,165 acres
- Direct personnel and equipment involved in restoration efforts.
- Document all private and public facilities damaged by fire.
- Conduct an assessment of roads used by suppression crews that need maintenance as a result of action taken during the fire.
- Conduct an assessment of all private and public property affected by fire.

II. ISSUES

- ♦ Important natural and cultural resources.
- ♦ Extensive soil disturbance to erodible soils from suppression activities.
- ♦ Urgent need to immediately implement short term rehabilitation treatments across landscape to protect watershed resources

III. Observations

A. Background

On July 25, lightning ignited the Tabor Creek Fire in the Elko Field Office area. Over the next few days, lightning ignited 12 additional fires within the Elko Field Office Area including the Sheep fire which grew to 83,673 acres, Hot Lake fire 70, 909. Factors contributing to the rapid growth of many of these fires included

strong erratic winds, low humidity, extremely dry fuels, lack of precipitation and limited access to control the fires. Due to the extent of these fires two Type II teams were ordered and assumed management of the large fire complexes. Extreme to advanced fire behavior was observed on the fires and many of the regardant lines were compromised by the intense fire behavior.
The following data briefly summarizes the13 fires located within the Elko Field Office Area that the Elko BAER team was asked to assess.

Administrative Unit	Fire Name	Ignition Date	Control Date	Acres Burned
NV-EKD	Tabor Creek	07/25/01	08/03/01	7,005
NV-EKD	Stag	08/03/01	08/10/01	19,578
NV-EKD	Mile Marker 367	08/04//01	08/08/01	578
NV-EKD	North Delano	08/04/01	08/09/01	8,824
NV-EKD	Rodeo Creek	08/08/01	08/11/01	5,529
NV-EKD	Sheep	08/09/01	08/19/01	83,673
NV-EKD	Dunphy	08/12/01	08/13/01	9,722
NV-EKD	Dee Gold	08/12/01	08/12/01	316
NV-EKD	Coyote	08/12/01	08/18/01	11,673
NV-EKD	Buffalo	08/12/01	08/18/01	21,188
NV-EKD	Bailey	08/12/01	08/13/01	1,201
NV-EKD	Hot Lakes	08/12/01	08/18/01	70,909
NV-EKD	Ranch	08/12/01	08/14/01	18,966
Totals Acres				259,165

Incident commanders contained the above fires utilizing various suppression techniques including building 231 miles of dozer lines. Due to the varied terrain, lines were constructed across terrain features including slopes in excess of 40%. Dozer impacts varied according to topography with light one blade surface scrapes along valley floors and ridge tops. Some dozer use resulted in moderately deep down cutting, but for the most part, these actions were isolated occurrences.

Rehabilitation treatments were implemented on all suppression related impacts that occurred on the major Elko Field Office Fires. Treatments were directed in a cooperative effort by resource advisors from Elko, Nevada. Corrective action to prevent soil erosion and help begin the restoration process needs to be completed with the use of heavy equipment and crews to re-contour hand and dozer suppression lines. In addition, safety zones and staging areas need to be treated.

At specific locations where the resource advisor felt heavy equipment would cause further resource degradation the sites were treated by crews or left alone. To date over 90% of all suppression lines assessed for rehabilitation have received treatments. The remaining 10% is scheduled to be completed by the Elko Field Office.

During the re-seeding of the fire lines it is recommended that the use of a rangeland drill or dozer with broadcast seeders be used where access and terrain allows. The use of such equipment will help insure increased success of the seeding operation. In other areas that terrain will not allow the use of such equipment aerial seeding of all perimeter lines has been prescribed to provide a timely means of applying seed on disturbed soils prior to erosive rains. The use of a helicopter and seed hopper will facilitate a uniform application with all line treated without regard to private or public ownership.

Resource advisors also surveyed fire areas for damaged public and private property. Structures destroyed include; corrals near a historic cabin, numerous power poles, range improvements, and over 66 miles of fence line. Several head livestock or wildhorses were reported as being lost due to the fires.

Assessments document 122 miles of County and BLM roads damaged by the suppression effort. Funding is requested to rehabilitate damaged roads back to their pre-fire condition to insure pubic safety is not compromised. The effects of three consecutive fire years that have consumed over 1.2 million acres within the same area has caused detrimental impact to the BLM road system. Many of the roads are going to require major repairs, an additional 44 miles of roads will require intensive repairs to insure public safety and allow access for rehabilitation efforts, permitees, and recreationist. A portion of that 44 miles may only require intermittent spot rocking (gravel), but severely impacted roads will

require re-graveling to bring the roads back to BLM standards.

B. Reconnaissance Methodology and Results

Resource advisors from BLM Field Offices served as rehabilitation specialists for each fire. Field surveys of fire damages and suppression related impacts were identified by a thorough ground and aerial reconnaissance. Considerable effort was made to access even the most remote areas of each fire to assess damages. Resource advisors assigned to fires were also directed to contact as many land owners and permittees as possible to insure their first hand accounts of damages and rehabilitation needs were included in reports.

C. Findings

Some of the impacts observed to resources from fire suppression activities were: (see related maps and specifications)

- 231 miles of dozer line**.**
- Hundreds of miles of hand line.
- Numerous safety zones and drop points.
- 122 miles of roads damaged by suppression activities.
- 2 bridges and 2 culverts damaged by suppresion traffic.

IV. Recommendations

A. Management (Specification Related)

- Continue to rehabilitate remaining fire lines and other sites directly or indirectly impacted by fire suppression activities. This should be done in a timely manner, before closing the suppression accounts.
- Designate a lead person from the Elko Field Office to coordinate and plan the aerial or rangeland drill seeding of suppression lines. Past experience has revealed that the magnitude of this operation will present formidable challenges if not properly preplanned between operational, air, and logistical personnel.
- Within the next 60 days prioritize road rebuilding and grading projects to

maximize brief work periods following rain events this coming fall.

a. #6 O - 6 Dozer Line Rehabilitation

General Description: Dozer line rehabilitation will generally be rehabilitated with dozers on slopes up to 40%. Hand crews will be used on slopes greater than 40%. Hand crews will also work behind dozers and complete rehabilitation at locations determined to be impracticable for dozer rehabilitation by dozer operators.

b. #7 O - 7 Road Rehabilitation

Rehabilitation of preexisting roads is necessary to avoid erosion gullies and ponding on road surfaces due to blockage of drainage diversions by berms. The intent is not to improve the roads beyond the pre-existing condition but to reestablish drainage and surface requirements for public safety. Road regrading should occur after sufficient moisture is available to reconstruct roads to pre-fire condition. Many of these roads provide primary access to private property, permittee allotments, recreational users, and the public at large

c. #8 O - 8 Dozer Line Re-seeding

General Description: Seeding is to be completed via helicopter, rangeland drill, or dozer. The District staff and equipment, primarily transport vehicles, will be used to move seed to and load seed from strategic staging points in close proximity to each fire. The need for seeding, seed selection and application rates were determined in consultation with local area resource management staff. Seeding will serve as an immediate, temporary ground cover to decrease surface erosion and help prevent invasion of exotic plants.

B. Specification Monitoring (specification related)

C. Management (Non-Specification Related)

- Insure rehabilitation specifications are clearly understood by new personnel assigned to treatment work, particularly heavy equipment operators performing line rehab.

- Many range and watershed treatments are enormous operational projects. Most projects would be best implemented with many resources over a short duration in contrast to limited resources over a long duration.

- Guarantee safety of personnel assigned to operational assignments in the

fire area during periods of precipitation over the burn.

V. Consultation

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VI. REFERENCES

Resource Advisor reports
USDI, 1995. BAER Field Team Leader Reference Book
BLM 98-148 III.M. BLM Emergency Fire Rehabilitation Handbook

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